

IN THE CLAIMS:

Please amend claims 1, 2, 5, 7, 8 and 10-14 as follows:

1. (Amended) A process for producing and/or repairing very fine tips made of a photostructurable material on a carrier, characterized in that

the carrier is positioned on a first side of an exposure mask whose exposure section correlates to the tip to be produced or repaired,

the photostructurable material is applied onto the first side of the exposure mask and/or the carrier,

an exposure of the photostructurable material occurs via the exposure mask from a second side opposite the first side,

the exposed photostructurable material is hardened and the unexposed material removed, and

the carrier with the tip and the exposure mask are separated from one another.

2. (Amended) The process according to claim 1, characterized in that the exposure occurs in a directed manner in a direction diagonal or inclined towards the tip.

5. (Amended) The process according to claim 1, characterized in that prior to the positioning of the carrier a small amount of the photostructurable material is applied onto the exposure mask so that the carrier adheres to the mask.

7. (Amended) The process according to claim 1, characterized
in that SU-8 is used as a structurable material and that a
spin coating is used for its application.

8. (Amended) The process according to claim 1, characterized
in that the exposure mask is made from quartz and the
exposure section provides the tip with a radius of less than
1 μm .

10. (Amended) A process for producing and/or repairing
very fine tips made of a photostructurable material on a
carrier, comprising:

providing a multitude of carriers positioned on a wafer
in an undivided manner,

arranging an exposure mask provided with a multitude of
exposure sections positioned in correspondence with the
multitude of carriers so that the carriers are positioned on
a first side of the exposure mask,

applying said photostructurable material onto the first
side of said exposure mask and/or said carriers,

conducting a simultaneous, inclined or diagonal exposure
of all said provided carriers on said wafer from a second
side, opposite the first side, of said exposure mask,
hardening said exposed photostructurable material and

removing any unexposed photostructurable material to form said fine tips, and

separating said exposure mask from the wafer.

11. (Amended) A probe for use in scanning probe microscopy, comprising a tip of a hardened photosensitive resist produced and/or mounted laterally at or on a carrier forming a cantilever of a scanning probe microscope.

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End

12. (Amended) The probe according to claim 11, wherein the tip consists of photosensitive resist and is fabricated by a process for making photoresist etch masks in the production of semiconductors.

13. (Amended) Use of a tip produced according to claim 1 in a scanning probe microscope comprising the step of examining a so-called soft specimen in a vacuum or at low pressure.

14. (Amended) Use of a probe embodied according to claim 11 in a scanning probe microscope comprising the step of examining a so-called soft specimen in a vacuum or at low pressure.
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Please add claims 15 and 16.

15. The process according to claim 8, characterized in that the exposure mask is made from quartz and the exposure section provides the tip with a radius of approximately 0.7 μm .

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cont

16. The probe according to claim 11, wherein the carrier
comprises or is made of a semiconductor or quartz material.
